

REMARKS

This Amendment is submitted in response to the official action dated September 11, 2007. The claim amendments included herein are merely clarifying amendments and are not meant to change the intended scope of the claims. Thus, the amendments present the rejected claims in better form for consideration on appeal, and they should be entered in due course. Moreover, the amendments are manifest, requiring only a cursory review by the Examiner, thereby providing additional ground for their entry.

Claims 1-18 were pending in the application. In the official action, claims 1-18 were rejected. In this Amendment, claims 1, 3, 7, 9, 13, and 15 have been amended. Claims 1-18 thus remain for consideration.

Applicant submits that the application is now in condition for allowance and requests reconsideration and withdrawal of the rejections in light of the following remarks.

\$103 Rejections

Claims 1, 2, 6, 7, 8, 12, 13, 14, and 18 were rejected under 35 U.S.C. §103(a) as being unpatentable over Kimura (U.S. Patent No. 7,102,673) in view of Smith (U.S. Patent No. 6,970,194).

Claims 3, 4, 5, 9, 10, 11, 15, 16, and 17 were rejected under 35 U.S.C. §103(a) as being unpatentable over Kimura in view of Smith as applied to claims 1, 7, and 13, and further in view of Anderson et al. (U.S. Patent Application Publication No. 2004/0096125).

Applicant respectfully submits that the independent claims (claims 1, 7, and 13) are patentable over Kimura, Smith, and Anderson.

Applicant's invention as recited in the independent claims is directed toward compensating defective pixels of video

signals. Each of the claims recites determining a reference pixel having color information that is the most similar to the color information of a defect pixel when only color information corresponding to the non-defective color(s) of the defect pixel is considered. Each of the claims further recites calculating an average value of differences between non-defective color information of the defect pixel and corresponding color information of the reference pixel, and setting defective color information of the defect pixel to the value of the corresponding color information of the reference pixel minus the average value.

For purposes of aiding understanding of the claims, claim 1 is reproduced below with references to Figs. 2 and 3 in parenthesis. The parenthetical references are merely for purposes of illustration and the invention is not limited to the embodiments contemplated by such references.

1. (currently amended) A pixel compensating circuit for compensating defect pixels included in a video signal comprising:

a color information holding unit for holding plural kinds of color information (R, G, B) of a defect pixel (P0) and pixels adjacent said defect pixel (P1, P2, P3, P4, P5), said color information of said defect pixel including defective color information (G0) and non-defective color information (R0, B0);

a difference calculating unit for calculating differences between non-defective color information among said color information of said defect pixel and corresponding color information of said pixels adjacent said defect pixel (R1-R0, B1-B0, R2-R0, B2-B0, . . . R5-R0, B5-B0);

a reference pixel determining unit for determining a reference pixel (P1) having color information that is the most similar to said non-defective color

information (P1 because sum of absolute values of differences for R and B colors is 34 which is lower than corresponding sum for P2-P5); and

a compensating unit for calculating an average value of said differences between said reference pixel and said defect pixel ( $AV = (R1 - R0 + B1 - B0) / 2$ ), and setting defective color information of said defect pixel to the value of the corresponding color information of said reference pixel minus said average value ( $G1 - AV$ ).

Accordingly, the claims specify that a reference pixel is selected based on information concerning colors other than the color(s) that are defective in the defective pixel. Further, the claims specify that defective color information of the defective pixel is set to the value of the corresponding color information of the reference pixel minus an average value which is based upon information concerning colors other than the color(s) that are defective in the defective pixel.

Neither Kimura, Smith, nor Anderson discloses that a reference pixel is selected based on information concerning colors other than the color(s) that are defective in the defective pixel. Further, the references do not disclose that defective color information of the defective pixel is set to the value of the corresponding color information of the reference pixel minus an average value which is based upon information concerning colors other than the color(s) that are defective in the defective pixel.

In particular, it is noted that Kimura discloses the detection of a defective pixel using information concerning at least one color that is the same as a defective color of the defective pixel. Regarding pixel compensation, Kimura merely discloses that an image signal of a defective pixel is set to

the average value of image signals of pixels adjacent to the defective pixel. (See e.g. Kimura col. 7, ll. 24-38; col. 8, ll. 17-27; and col. 9, ll. 9-14).

Accordingly, Applicant believes that claims 1, 7, and 13 are patentable over Kimura, Smith, and Anderson - taken either alone or in combination -for at least these reasons.

Dependent claims 2-6, 8-12, and 14-18 depend respectively on independent claims 1, 7, and 13. Since dependent claims inherit the limitations of their respective base claims, claims 2-6, 8-12, and 14-18 are believed to be patentable over Kimura, Smith, and Anderson for at least the same reasons discussed in connection with claims 1, 7, and 13.

Applicant respectfully submits that all of the claims now pending in the application are in condition for allowance, which action is earnestly solicited. If any issues remain, or if the Examiner has any further suggestions, he/she is invited to telephone the undersigned at (908) 654-5000.

The Examiner is hereby authorized to charge any insufficient fees or credit any overpayment associated with the above-identified application to Deposit Account No. 12-1095.

The Examiner's consideration of this matter is gratefully acknowledged.

Dated: October 25, 2007

Respectfully submitted,

By 

Bruno Polito

Registration No.: 38,580  
LERNER, DAVID, LITTENBERG,  
KRUMHOLZ & MENTLIK, LLP  
600 South Avenue West  
Westfield, New Jersey 07090  
(908) 654-5000  
Attorney for Applicant

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